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Edited by susan E. Alcock, John Bodel, and Bichard J. A. Talbert

Highways, Byways, and Road Systems in the Pre-Modern World

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From the Indus to the Mediterranean: The Administrative Organization and Logistics of the Great Roads of the Achaemenid Empire¹

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The Classical Sources

From the Indus Valley in the east and the Aegean coast in the west, from the Iaxartes/Syr Darya river in the north to Aswan in the south, the Persian Achaemenid empire, for more than two centuries, was the largest empire ever put together in antiquity. During a decade of conquest, Alexander had constituted it precisely to his advantage by appropriating the same boundaries (Elephantine, Syr Darya, and Indus). Already in antiquity, Greek observers highlighted what they regarded as one of the major problems of imperial government: the contrast between the immensity of imperial territories and the will of the Great Kings to establish and maintain their hold. The observation has also been made by modern historians and philosophers, such as Machiavelli and Montesquieu.² For the latter, empires too vast were uncontrollable because of their distances. In his view, the Persian empire could have resisted Alexander if Cyrus had not conquered Asia Minor, and the Seleucid empire would have had a longer life if Seleucus had chosen to establish the seat of power in Babylon instead of wishing to control tightly the western parts of his empire. Montesquieu knew only a single exception to this rule: the empire of Alexander, which (Montesquieu maintained) was made viable by the Macedonian king's ability to establish relationships of trust with the Persian elite (Briant 2005–6). Almost the same observation was made by Xenophon, speaking of the empire of Cyrus the Great, who managed to range beneath his domination "the peoples who

lived within days of walking, even months, as well as others who had never seen him, and others who knew very well that they would never see him, and yet were willing to submit to him" (*Cyropaedia* 1.1.4–5).

Accordingly, Greek authors often highlighted the difficulties of the Great Kings and their generals in gathering imperial armies, whose contingents had to be levied throughout all the lands of the empire. In fact, the levying of such armies was exceptional throughout Achaemenid history (Briant 1999, 116–20).³ Furthermore, the same authors generally point out that the empire of the Great Kings had an extremely well organized network of roads, which facilitated communication (Briant 1991; 2002, 357-87, 927-30; Kuhrt 2007, 2,730-62). The well known passage in which Herodotus describes the layout and logistics of the royal road that allowed Susa to be reached from Sardis (5.52-4; Kuhrt 2007, 2.738-9) may leave open to discussion the exact route of its middle part (e.g., Debord 1995; Graf 1994, 175-80), but the existence of the road itself is not in doubt. At the same time, it is not appropriate to call it "the" royal road or to map an Achaemenid empire organized around it (as, surprisingly, Curtis and Tallis 2005, 11; cf. Briant 2002, 366 = Kuhrt 2007, 2.736, fig. 1). The passage of Herodotus needs to be precisely contextualized without being over-interpreted. Herodotus is not here surveying the networks of roads that he knew of throughout the empire; he is simply following the course of a narrative in which Aristagoras is trying to demonstrate to the Spartan Cleomenes the ease of travelling from western Asia Minor (Ephesus and Sardis) "up to the king." The passage certainly does not suggest that the road from Sardis to Susa represented "the royal road" par excellence. Similarly, if, with the same discursive logic, Herodotus says with reference to Susa that "the Great King has his residence and deposits his treasures there" (5.41), this certainly does not imply that Susa was the capital of the empire. It was just one of the royal residences that the king occupied for a few months each year during his periodic travels from one residence to another (Briant 2010, 31–2).

In order to reconstruct the network of Achaemenid roads, we must broaden our perspective and extend our documentation (Figure 9.1). Without discussing here the Neo-Assyrian precedents (e.g., Graf 1994, 181–4; Favaro 2007), we should emphasize that Greek documentation provides further useful information, including an inscription of the Hellenistic period mentioning "the old royal road (basilikè hodos) that the nearby peasants turned into cultivation" (Welles 1933, no. 20). In a passage from his Persika (F 33), Ctesias describes the road that "went from Ephesus to Bactria and India," and enumerates the relays (stathmoi), travel days, and parasanges (a Persian unit of distance equaling roughly 5 km). We know nothing more about it, but the fragment suggests that Ctesias's perspective extended across the entire empire from the Mediterranean to the Indus. His description confirms in part what Herodotus says of the distances, stages (stathmoi), and very fine resting stops (kataluseis kallistai) for travelers that punctuated the route between Sardis and Susa.

Apart from the Greco-Roman sources, the richest body of evidence is represented by stories of the expeditions and conquests carried out first by the

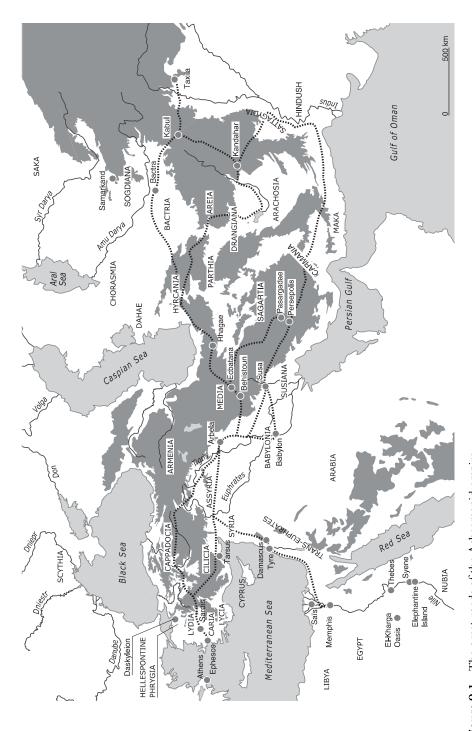


Figure 9.1 The great roads of the Achaemenid empire. *Source:* Map by P. Briant.

army of Cyrus the Younger and his mercenaries (the *Anabasis* of Xenophon; see Manfredi 1986 and Briant 1995) and then by Alexander the Great. While Alexander opened roads in areas that had none (e.g., Arrian, *Anabasis* 1.26.1) or borrowed secondary routes to evade enemy positions (Briant 2002, 360–61, 726–33), he generally took advantage of existing routes and logistical arrangements to allow the movement of groups, troops, and even the royal court from one part to another of the imperial territories. The weight of his train forced him to use roads accessible to wagons (*hodoi hamaxitoi*; e.g. Arrian, *Anabasis* 3.18.1), as well as equipped with many supply stations (e.g. Arrian, *Anabasis* 3.16.2). None of this is surprising:

It could be said that, for the enemies of the Great King to have any chance of success, they would have to take the Achaemenid theater of strategic operations or, in other words, to turn to their own advantage the logistics the Persian authority had established to ensure its survival. (Briant 2002, 373)

We have a fine example of this continuity in a financial scheme reported by the author of *Oeconomica*:

Antimenes bade satraps to replenish (anaplēroun), in accordance with the law of the country (kata ton nomon ton tes choras), the magazines along the royal highways (tons te thesaurous para tas hodous tas basilikas). Whenever an army passed through the country or any other body of men unaccompanied by the king, he sent an officer to sell (epolein) them the contents of the magazines. ([Aristotle], Oeconomica 2.2.38, trans. G. C. Armstrong: Loeb)

The episode took place in Babylon during the last months of the reign of Alexander. Antimenes – known only through anecdotes transmitted by Pseudo-Aristotle (*Oeconomica* 2.2.34, 38) – held a high position in the financial administration of Alexander, and it is in this capacity that he is introduced by the author.⁴ In this anecdote, as in another (where he shows himself to be equally keen to increase the royal treasury), Antimenes makes decisions which he communicates to satraps. Here, the satraps have an obligation to maintain the level of the food supplies in the warehouses (*thesauroi*) which the royal administration maintained along the royal roads. The reference to "the law of the country" (*ton nomon ton tes choras*) leaves no doubt about the maintenance of Achaemenid regulations, even if the term used for the transfer of goods from storage (*epolein*, "to sell") does not appear to correspond exactly to the mission of the satraps and governors: it was less to sell (in the strict sense) than to issue rations to official travelers.⁵

Of all the classical texts that might be cited, I would emphasize the value of a letter contained in the collection of the so-called *Letters of Themistocles*. We know that the famous Athenian had to flee his city and, after many adventures, decided to win his way to the Grand Court of the King (Briant 2007). Of all the texts that narrate the journey to the center of the empire, the following passage of the *Letters* is especially informative:

Some people brought the information to Artabazos and took me to Phrygia. For Artabazos was in Phrygia. When he learned among other things that I had decided to go to the King, he approved and sent me immediately. He gave me two horses and an equal number of servants (oikètai) and sent me along with thirteen other Persians who were in charge of the road (hodos) and the provisions (epitèdeia). They rode camels. On the way I passed through a few hills and a deep valley. I saw and traversed great flat plains. The edges of them were inhabited and worked well. The desert part nourished wild beasts and herds of other animals. I sailed down many rivers and visited all kinds of people. From my fellow travelers (synodoi) I learned the Persian language, and the journey was no longer unusually tiring or troublesome to me. The trip ended, and I was at the King's, the goal toward which I had started. (Letters 20.27, trans. Doenges 1981, 221–2)

According to the anonymous author, Themistocles had obtained official permission from the satrap of Hellespontine Phrygia, who provided him with an escort outfitted with horses and had evidently authorized access to supplies for both men and animals (horses and camels) throughout the journey.

The View from the Center

The "Travel Rations" texts of Persepolis

Since the sources leave no doubt about the need to obtain safe passage from the satraps in order to move freely on the roads and to have access to the relay stations and royal warehouses (Briant 1991, 71-4), naturally, it is imperial sources that offer the most reliable and detailed information. If the Aramaic ostraka of Palestine and the Aramaic letters of Bactria invite reflection on the availability of supply stations in these regions (Briant 2009, 148-55), these documents are revealing because they are closer to an infinitely more transparent body of evidence, namely the texts of the so-called Persepolis Fortification tablets, which Richard Hallock devoted himself to publishing.⁷ Among the various categories distinguished in his publications of 1969 and 1978, Hallock rightly highlighted the unity of the category Q, which he called "travel rations," and which includes texts as yet unpublished.⁸ Although limited in space (Persia) and time (between 509 and 494), we can see from this material, unsurprisingly, that official visits were organized to and from all lands of the empire. For example, consider the journeys to and from Susa, twenty and thirty-eight occurrences respectively, not counting numerous direct trips between Susa and Persepolis (Briant 2010). One finds there almost all the eastern satrapies, above all Kerman (twenty-four times), Hindush (fourteen), Arachosia (ten), but also Aria (four), Gandhara (four), Drangiana (one), and Bactria (two). If we consider the entire corpus (e.g., Koch 1993, 5-46), several examples of travel between Persepolis and Media appear, as well as travel between the center and western regions or satrapies such as Sardis, Babylon, Syria, Egypt, and even Lebanon.10

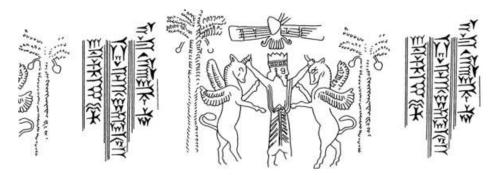


Figure 9.2 PFS*7: collated seal with a trilingual inscription on Persepolis fortification tablets. *Source*: Garrison and Root 2001: 68–70, cat. no. 4.

The identity of the travelers is very varied. The tablets of the J series (PF 691–740, 2033–5) gather documents relating to "royal provisions." To quote Hallock:

The J texts deal with many different commodities, at many different places, forty-three "dispensed before the king" (*m. sunki tibba makka*) and twelve "before" certain members of the royal family: Irtašduna, wife of Darius (PF 730–2); Irtašduna and Arsames, a son of Darius (PF 733–4, 2035); and the woman Irdabama, whose relationship is unknown (PF 735–40).¹¹

These texts are an implicit but clear reference to an Achaemenid courtly custom that particularly struck Greek observers: the "nomadism of the court" which, over the course of the year, moved from residence to residence (Briant 1988; 1994; 2002, 183–95). It is likely that the seasonal rhythm was not as strict as classical authors imply, but the reality of the institution is not in doubt (Tuplin 1998; Henkelman 2010, 713–53, offers detailed analysis of the provisions put at the kings' disposal on tour). As noted by Hallock (1969, 25), it is to the J series that the only Achaemenid-Elamite tablet found at Susa, published by Jean Vincent Scheil in 1911, belongs. It reads: "Sixty-four marriš [ca. 170 gallons] (of) first class clarified butter, supplied by Maštetinna, were consumed before the king, at Susa and five villages (humanuš), in the twenty-second year" (Henkelman 2010, n. 270–1). The king in question is Darius I, traveling around 500/499 in Susa or between Persepolis and Susa. The tablet is printed with a seal well known at Persepolis (PFS*7), which depicts a royal hero holding a composite animal by the horn with each hand (Figure 9.2). The seal bears a trilingual inscription in Old Persian, Elamite, and Babylonian: "I, Darius, Great."

The interest of PFS*7 lies not only in stylistic considerations but also in its administrative implications. Together with PFS 66* this seal is used only on the tablets of the J series, and it clearly belongs to a high officer of the administration, who may have accompanied the king in all his movements and who was charged with provisions "consumed before the King." ¹²

The king, the court, and the high dignitaries are obviously not the only ones who used the highways and who drew from the warehouses of the administration.

Table 9.1 Movements from Susa to Persepolis and Tamukkan (500–499).

Tablet	From	Towards	Status	Number
PF 1475	[Susa]	Persepolis	Kurtaš	155
PF 1489	?	?	Men	22
			Elite guides	2
			Kurtaš	16
			Puhu ['servants']	2
PF 1547	Susa	Matezziš	Egyptian kurtaš	30
PF 1557	[Susa]	Tamukkan	Egyptian <i>kurtaš</i>	547
NN 327	Susa	Persepolis	Kurtaš artisans	23
NN 362	Susa	Persepolis	Kurtaš	78 [?]
NN 364	[Susa]	Persepolis	Babylonian kurtaš?	22
NN 435	[Susa]	Persepolis	Kurtaš artisans?	[5;]
NN 487	Susa	Persepolis	Kurtaš []	140
NN 786	[Susa]	Persepolis	Babylonian <i>kurtaš</i>	///
NN 839	Susa	Matezziš	Kurtaš	///
NN 1126	Aksuštiš	///	Skudrian <i>kurtaš</i>	1014
NN 1216	[Susa]	Persepolis	Kurtaš zamip	3?
			["exerters": Hallock]	
NN 1798	Susa	Persepolis	<i>Kurtaš</i> (men)	40+41
NN 1969	Susa	Persepolis	Kurtaš	///
NN 2132	Susa	Persepolis	Babylonian kurtaš	124
NN 2426	Susa [?]	Persia [?]	Men	321
			Stone-cutters	95

Sometimes these were isolated individuals, but more often groups of between a few persons and several hundreds of people. Sometimes described in terms difficult to translate ("gentlemen," "servants," etc.), travelers are occasionally identified by ethnonyms (Elamites, Persians, Lycians/Termiles, Egyptians, etc.) or technical expertise (masons, goldsmiths, herders, stonemasons, etc.), but often they are simply designated with the generic qualifier *kurtaš*, "workers," at the disposition of the administration (Briant 2002, 429–39, 456–60). The tablets of the Q series illustrate perfectly the management of the labor force, which could be moved in groups of more or less significant size from one location to another within Persia itself, but could also be sent from one end of the empire to the other (e.g., a group of stonemasons between Susa and Aria [PF 1540]). Table 9.1 summarizes some of these movements of *kurtaš* during the twenty-second and twenty-third years of Darius (500 and 499) not only between sites at Susa and Persepolis but also to the major building-works on the site of Tamukkan (Taokè, on the Persian Gulf; Tolini 2008).

The trips were organized from the province of departure by the satrap and his administration through a process that can easily be recognized. Travelers received at their departures a "sealed authorization" (*halmi*) from a high authority, who can be none other than the satrap (Koch 1993, 5–58): for example, Irdabanuš

(Artabanos) in Bactria, Irdarpirna (Artaphernes) at Sardis, Vidarna (Hydarnes) at Ecbatana, or Bakabana (Bagapāta) at Susa. 13 This valuable document might also be issued by the chief administrator of Persepolis, Parnakka, or by the king, as with PF 1318: "He carried a sealed document of the king (halmi sunkina). They went forth from India. They went to Susa. Second month, twenty-third year." The text does not imply that the king was in India at the time (pace Giovinazzo 1994; cf. Briant 2010, n.54 and n.60, following Tuplin 1998), but rather that a return trip to Susa had been ordered by the king from the center of the empire. This is also true of the unedited tablet PF-NN 1809, which bears the following text: "Datiya received seven marris of beer as rations. He carried a sealed document (halmi) of the king. He went forth from Sardis (Išparda) (via) express-service (pirradazis), went to the king (at) Persepolis. Eleventh month, year twenty-seven. (At) Hidali."14 One sees clearly here that the king was not at Sardis then, since Datiya is to come and join him at Persepolis; this, too, is a return trip. Rather exceptionally, the text mentions one of the numerous stopping-points where Datiya received his rations: Hidali, on the border of Elam and Persia.

What the tablets at our disposal record is not the authority proper entrusted to the head of the delegation, but simply a certificate of payment of rations at a particular stage of the journey by one or another warehouse supervisor. The copy was sent to Persepolis or into the satrap's archives for the annual audit. That is why we sometimes find duplicates of such declarations in two categories of tablets, V (journals) and W (accounts) (Hallock 1969, 55–69; PF-NN 2259 ["religious journal"] with Henkelman 2008a, 385–454). Here, for example, are two excerpts from this type of summary document:

Forty-nine (marriš of wine). Yadaušiya, (who) took Cappadocian workers (kurtaš) across from Rakkan to Ušbaka (at) Tamukkan, received for them, as rations (for) one day (in) the ninth month, twenty-first year, 980 workers received each one twentieth (marriš) [ca. 0.5 liter]. (PFa 30, lines 11–13; Category V: Hallock 1978, 132)

Twenty-one (*marriš* of wine) Hihuddamana received, and gave (it) to princesses, to girls, daughters of Hystaspes, he gave (it). They went from Media to Persepolis. He carried a sealed document of the King. (*PFa* 31, lines 13–16; Category V: Hallock 1978, 115, 131)

It should also be noted that delegations could be accompanied by animals, and indeed must have been in most cases. ¹⁶ Here is an example:

Nine QA [= ca. 9 liters] (of flour), supplied by Barušiyatiš, Karan received (for) rations. Four men each consumed one and a half QA. Three mules each consumed one QA. They carried apples (?). He carried a sealed document of the King. Twentythird year, twelfth month. (PF 1300)¹⁷

The tablets of the Q series should thus be joined with those of the S3 series, "Travel rations for animals" (PF 1780-7), which relate to travel and rations



Figure 9.3 Seal of Aršāma. *Source*: Porten and Yardeni 1999, 230.

for horses (PF 1780–4), horses and mules (PF 1785), camels (PF 1786–7), or dogs (PF 1264–5). 18

An official travels from Babylon to Egypt

As I mentioned above (p. 192), following Hallock, the Persepolis tablets do not transcribe the original document (the *halmi*, the sealed document); they simply evoke it transparently (if I may use such an expression). In fact, they record the name of the high official who granted the permission (a satrap, king, or Parnakka) and a certain number of details that were incorporated into the document (the composition of the group, the journey, the amount of rations, etc.).¹⁹ It is our good fortune to have such an explicit authorization among the letters of the satrap Arsamès (Aršāma), who ruled the satrapy of Egypt during the reign of Darius II (on whom see Briant 2002, 1150 s.v.) (Figure 9.3). His correspondence, or part of his correspondence, was found collected in a leather bag that also contained an imprint of his seal with the Aramaic inscription "Seal of [Aršāma] son of [the] ho[use]."²⁰

Among his official correspondence is a letter (VI) traditionally titled by editors and commentators "Open Letter of credit for rations" (Whitehead 1974, 59–68, with the best analysis) or "Open Letter of authorization for rations" (Porten and Yardeni 1986, 114) or, more accurately, "The journey of a new steward." Here is the latest translation offered by Bezalel Porten, which differs only in minor details from that proposed by John Whitehead (1974, 65–6, reproduced with commentary in Briant 2002, 364–5):

From Aršāma to Marduk the official (pqd^n) who is in [G°]; Nabudalani [the] officia[1] who is in Lair; Zatuvahya the official [who is in] Arzuhin; Upastabara the official who is in Arbel, Hl- and Matalubash; Bagapharna the official w[ho] is in Salam; Phradapharna and Hw[..]t the [off]ic[ials] who are in Damascus.

And n[o]w, [behol]d (one) named Nakhthor, m[y] official (pqd'), [is] g[oing] to Egypt. You, give rations (ptp) charged to my house (or, better, "estates": Kuhrt 2007, 739; cf. n. 24 below) (byt zyly) which is in your province(s), day by day:

"white" flour - t[w]o handfuls,

"inferior" flour - three (E R A S U R E: three) handfuls,

wine or beer - two handfuls,

[] one.

And to his servants, ten per[s]ons, to each per day:

flour - one handful,

fodder – according to (the number of) his horses.

Give rations to two Cilician persons (and) one artisan, all (told) three, my servants who are with him to Egypt, to each person per day: flour – one handful.

Give them this ration, each official in turn, according to the route which is from province to province (*medinah*) until he reaches Egypt. And if he be in one place more than one day, then for those days do not give them extra rations.

Bagasrava knows this order. Rashta is the scribe.

The content is easy to understand. While in residence at Babylon, the satrap of Egypt sends his steward to the Nile Valley to manage his property and businesses there. Nakhtor is accompanied by ten servants, in addition to two Cilicians and a craftsman; the caravan also includes a number of horses. To judge from the Aramaic document, the travelers were closely monitored. There was to be no dragging out of the route or consuming of extra rations. Each distribution is tied to the completion of a stage of the journey for which the estimated duration is set by the administration: "And if he be in one place more than one day, then for those days do not give them extra rations." Throughout the route, at each stage, the members of the caravan, each according to his grade level, are provided with rations of flour; the same holds for the horses, which are given fodder.²² That is why the "Open Letter" is addressed to senior officers (also referred to as "stewards"), who managed the warehouses located in cities and towns along the road from Babylon to Egypt. In the following table is a list of the locations and personnel, which includes a significant number (four of six) of Iranian names (in italics in the table, right column):

Stopovers	Officials (paqdu)	
NN	Marduk	
Lair	Nabudalani	
Arzuhin	Zatuvahya	
Arbela, NN, Matalubash	Upastabara	
Salam	Bagapharna	
Damascus	Phradapharna and NN	

From such well-known cities as Arbela and Damascus, we recognize that the road followed the left bank of the Tigris across Upper Mesopotamia before descending the valley of the Euphrates and then arriving at Damascus. The stages of the journey from Damascus to Memphis must have been mentioned in a second authorization – which, we note in passing, prompts reflection on the administrative units "from *medinah* to *medinah*."

The operation of the system at the imperial level

Already in 1950, in a preliminary article where Hallock transcribed, translated, and commented on a tablet he would later publish in 1969 as PF 1404 ("Trip from Sardis to Persepolis, directed by Dauma, bearer of a *halmi* of Irdapirna/Artaphernes"), he pointed out that the tablet was certainly not a duplicate of the sealed authorization: they were two distinct documents. A few years later, pursuing Hallock's observation, Emile Benveniste compared the tablet (FP 1404) with the Aramaic document:

The Elamite tablet and the Egyptian document are complete. Thanks to the Persepolis tablet, we can recognize the nature of the Aramaic document; that which is called in Elamite *halmi*. The document mentions the places where the traveler should stop and names the local officials instructed to provide food, the nature and quantity of which was supposed to vary with the traveler's rank. These accommodations were both recorded on the spot; one notes the amounts attributed with the name of the responsible beneficiary and the mention of the authority who had issued him with the *halmi*. It is this type of accounting document that is preserved for us in the Elamite tablet reproduced above. (Benveniste 1958, 65–6)

Wisely, Benveniste proposed to understand *halmi* as a "letter of credit" (1958, 63) – terminology that is commonly used today to describe our Aramaic document. In his publication of 1969, Hallock returned to the issue, writing:

The travel-ration texts also, by their very existence, imply an elaborate system for the transfer of credits. The texts were inscribed at the supply station and sent to Persepolis. There, evidently, the commodities dispensed were credited to the account of the supplier and debited to the account of the official who had provided the travelers with a "sealed document" (halmi) or "authorization" (miyatukkam). (Hallock 1969, 6)

The issue raised by Hallock is thus connected with other problems too complex to enter into here. To the question: "Were the resources and expenses of the empire generally managed globally, at the imperial level, in a manner similar to what one sees in Persia itself in the Persepolis tablets (Briant 2002, 447–8, 943)?," a positive answer is suggested by the Q series of the Fortifications archive, and by the passage of Pseudo-Aristotle cited above. Antimenes writes to the satraps that they must take care to maintain a constant level of reserves in the warehouses (thesauroi) along the royal roads.

What is more, the Aramaic document reminds us of a problem raised by other sources too, that of the porous boundary between the state economy and the economy of the private sector. Examination of the Persepolis tablets strongly suggests that the house of the King (ulhi sunkina in Elamite) had its own administration, both distinct from and partially overlapping with the general administration, through the activities of its highest official, Parnakka (Briant 2002, 463-71, 945-7). What was true of the administration of the King's house applied also to the satraps' administration, as well as in the case of what Arsamès calls his "house" (in Aramaic, beyt: Briant 2006). It is indeed very difficult to distinguish clearly what in the "house" of a satrap is drawn from his own property, and what is drawn from the property that he holds in his official capacity.²³ A passage from the letter of Arsham/Aršāma encapsulates the problem. It gives orders to the stewards of the warehouses located on the road to take rations "from my house (byt zyly)." It is sometimes inferred from this wording that the satrap possessed large private estates along the road and that he deducted the rations of his subordinates on his property. But, as Whitehead showed clearly in 1974, "[Aršāma] is thereby authorizing the superintendents to provide the rations and charge them to his estate through the central accounting system witnessed by the Elamite tablets" (Whitehead 1974, 64; my italic). ²⁴ The term beyt – the Aramaic equivalent of Babylonian bitu, the Elamite *ulhi*, and Old Persian $vi\theta$ – should be translated "estate," a "house" in the sense of the Greek oikos (Briant 2002, 463–71). This is the "house" of the satrap, in the double sense of his own property and the assets attached to his office. In other words, the satrap of Egypt, like all his colleagues, has at his disposal with the central administration a "credit" from which he draws for official expenses, such as the rations of travelers to whom he has entrusted a "sealed document" (halmi). At the end of each year, the central government established a balance sheet of income and expenditures – what Pseudo-Aristotle (2.1.2) calls eisagôgima and exagôgima, which in this context we should avoid translating as "imports" and "exports" (Briant 2002, 451–3, 943–4).

There is no doubt that the management of inventory in the warehouses on the royal roads was a priority in the administration of the empire, not only because the Great King and the court always had to find all the products needed for the table of the King (Briant 1994; 2002, 200–3, 286–92; Henkelman 2010), but also because the workers of the administration circulated in large numbers on all the roads of the empire, and the road system itself formed an essential feature for military strategy and for the organization of territories. The management of these

supplies fell to both the central government and the administrations of the satrapies. This is the reality expressed in the passage of Pseudo-Aristotle's *Oeconomica* cited above (p. 188) concerning Antimenes in Babylon.

In opening his chapter on the road system of imperial China, Joseph Needham declared that "the greatest highways of the ancient and medieval worlds were planned and constructed with strategic intent" and that "impressive and complex systems do not develop until the rise of strong and centralized governments." For comparison, he pointed to the examples of the empires of Persia, the Inca, and the Maurya (Needham 1954, 1–2). Between the Persian empire and the empire of the great kings of China, he established an even more direct comparison, quoting a saying of Confucius: "The radiation of virtue is faster than the transmission of (imperial) order by stages and couriers." As he then goes on to observe, "this remark would have been made, it is curious to note, at a time exactly contemporary with the functioning of the Persian Royal Road, ca. 495!" (Needham 1954, 35).

Notes

- 1 Translated from the original French by J. Bodel. Except where clearly referring to the modern era, all dates are BCE.
- 2 Machiavelli, *The Prince*, Chapter 4 ("Why the kingdom of Darius which Alexander had seized from his successors did not fail after the death of Alexander," *Cur Darii regnum quod Alexander occupaverat a successoribus suis post Alexandri mortem non defecit*). Charles de Secondat, Baron de Montesquieu, *Considerations on the Causes of the Greatness of the Romans and Their Decline* (ed. 1748), ch. 5.
- 3 At an earlier period Darius's strategy, when faced with a Macedonian offensive, was normally to entrust the defense of Asia Minor to his satraps under the command of Arsites of Hellespontine Phrygia (Briant 2002, 817–28).
- 4 On his title (*hemiolos*) and functions, see recently Müller 2005 and Le Rider 2007, 277–80 (not knowing Müller's article).
- 5 See also [Aristotle], *Oeconomica* 2.2.34 "an ancient law of the country" (*nomou ontos en Babylonia palaiou*) and 34b "according to the regulation in force" (*kata ton nomon ton keimenon*). For administrative continuities between the Achaemenids and Alexander, see Briant 2009, 164–70.
- 6 This is not the place to discuss the authenticity of the *Letters*, which is highly doubtful. My aim here is simply to note the contextual coherence of the information used in this passage: see Briant 1992.
- 7 On the present state of research, see Henkelman 2008a, 65–79, and the acts of a colloquium held at the Collège de France in November 2006 in Briant, Henkelman, and Stolper 2008.
- 8 Hallock 1969, 40–46, presenting tablets PF nos. 1285–1579 and 2049–57, to which add Hallock 1978, 120–24. Unfortunately, there does not exist today an assessment of the current state of research, even in preliminary form, on this aspect of imperial administration. The article of Seibert 2002 is commendable, but is essentially reported at second hand. I have often touched on the question (e.g. Briant 1982, 204–9), and at the time of his death in 1994, David Lewis left a manuscript of his research into the Persepolis

Tablets on the movements of the royal court (see Tuplin 1998 and Briant 2010 concerning travel to and from Susa, on the evidence of numerous tablets as yet unpublished). Discussion has focused mainly on the route and stages of the road between Susa and Persepolis: see, most recently, Potts 2008, with earlier bibliography.

Hallock had transcribed several thousands of unpublished texts (cataloged as PF-NN), which are now being analyzed and published by a group organized by M. W. S. Stolper at the Oriental Institute of the University of Chicago (Briant et al. 2008, 16–25); on the unpublished manuscript of Hallock, see also Henkelman 2008a, 72–5. A synthesis can be achieved only from a comprehensive review of the entire body of evidence, namely the texts themselves and the associated seals: cf. Briant, Stolper, and Henkelman 2008a, 18: "Thanks to the work of Margaret Root and Mark Garrison, seals and seal-use now occupy a central role in the study of the Persepolis Fortification Archive, with rich and growing consequences for understanding Achaemenid art and iconography, but also for identifying the administrators in and outside Persepolis, for reconstructing the network of relationships among them and for ascertaining their social and political status. They also provide, alongside prosopographical analysis, the basis for establishing a relative topography of the Fortification Archive." See Root 2008, esp. 115 (seals on the Q-texts), and Garrrison 2008, esp. 158–69 (seal use).

- 9 See Henkelman 2008a, 110–23 (territorial extent; cf. Henkelman 2008b) and 123–25 (dates): the known corpus covers the thirteenth through twenty-eighth years of Darius I (509–493), and more than 80 percent of the tablets of category Q are concentrated in his twenty-first through twenty-third years.
- 10 In addition to Koch 1993, 12–14, see now Henkelman 2008b, 308–12, who adduces the location of Kabaš/Gabai (Strabo 15.3.3) as a stopping-point between Persepolis and Ecbatana. For Sardis, see PF 1404 (Dauma goes from Sardis to Persepolis, accompanied by twenty-three men and a dozen young persons); PF-NN 1809 (a certain Datiya, in January or February 494, goes from Sardis "to the King at Persepolis": see below n. 14); and PF-NN 901 (a stop at Susa by a group coming from Sardis). Lebanon is cited once in an unedited text (PF-NN 1609).
- 11 Hallock 1969, 24–25. Irtašduna is the Artystonè known from Herodotus (3.88, 7.69, 72). For Irdabama and her travel provisions, see especially Henkelman 2010, 693–97; also Brosius 1996, 129–44.
- 12 For the tablet and the seal, see Garrison 1996, esp. 25–26. For the same seal elsewhere at Persepolis, see the photos and drawing by Root 2008, 126.
- 13 halmi: in old Persian viyátika-: (Hallock 1969, 733-5 s.v.; Henkelman 2008a, 143).
- 14 Lewis 1980 proposed to identify Datiya with the famous Datis, returning from an inspection visit in Asia Minor.
- 15 Since each warehouse specialized in a single commodity (flour, grain, wine, beer, meat, etc.), the fact that a tablet refers to only one type of rations (e.g., flour or wine) should not mislead us; we simply do not have receipts from other warehouses (e.g., for beer or meat) that the caravan would nevertheless have visited according to the travel document (*balmi*).
- 16 This was implicitly the case with "fast messengers" (*pirradazziš*) mounted on horses also called *pirradazziš*: cf. Hallock 1969, 42; Briant 2002, 369–71, 928; Gabrielli 2006, 49–50, 61–62.
- 17 1 QA = 1/10th of BAR; 1 BAR (solid) = 1 *marriš* (liquids) = ca. 10 liters; thus 1 QA = ca. 1 liter. Compare also PF 1338 (cattle, between Susa and Persepolis); 1397 (three mules and three horses along with 180 people and fifty boys, from the King to India); 1418

(two men and twenty-eight camels, from Susa to Persepolis; each camel received one half BAR); 1467 (three gentlemen received one half QA of flour; two mules: two QA each); 1508 (twenty "gentlemen," thirty boys, six horses: one BAR each; one horse received eight QA); 1570 (six horses received one BAR each); 1571 (thirty mules received one and a half QA each); 2056 (588 men, one and a half QA each; eighteen horses, three QA each; 100 mules, two QA each: from Aria to Susa).

- 18 On rations for horses, see Gabrielli 2006, 35–60, without first-hand knowledge of the tablets. For camels, see also PFa 26 and Briant 2002, 464–65.
- 19 In a certain sense, *Letter 20* of "Themistocles" (above, pp. 188–9) provides an illustration in Greek (albeit fictional) of such a document: the name of the satrap (Artabazos), the travel (from Phrygia to the king), the number and nature of the accompanying entourage (thirteen Persians and two servants), and the animals (two horses, some camels); there is also a clear reference, even if not explicit, to the provisions for travel (*epitèdeia*).
- 20 See Driver 1957, 1–3 and esp. Whitehead 1974, 1–90, which regrettably remains unpublished. For the court formula "son of the house," see Briant 2002, 310, 959.
- 21 "Le voyage d'un nouvel intendant" (Grelot 1972, 66–8; French translation with commentary); a French translation was offered earlier by Benveniste 1958, 64.
- 22 The existence of reserves of fodder is also attested by a passage of Diodorus Siculus 16.41 (Phoenician rebels destroy stocks of fodder accumulated by the satrap), and another Aramaic corpus: the *ostraka* of Edom and the letters exchanged between the Bactrian satrap and his subordinates; see Briant 2009, 149–53, with references.
- The Aramaic letters of Achaemenid Bactria raise the same issue (Shaked 2004, 14, 30).
- 24 It is on this understanding that Kuhrt 2007, 739 translates (above, p. 194) "charged to my estates." I arrived at the same conclusion as Whitehead before I knew of his work (Briant 1979, 1395 n. 89 = 1982, 311 n. 89).

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